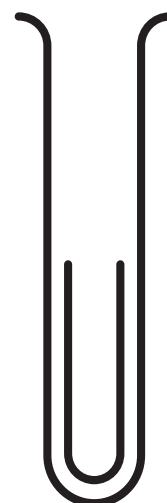
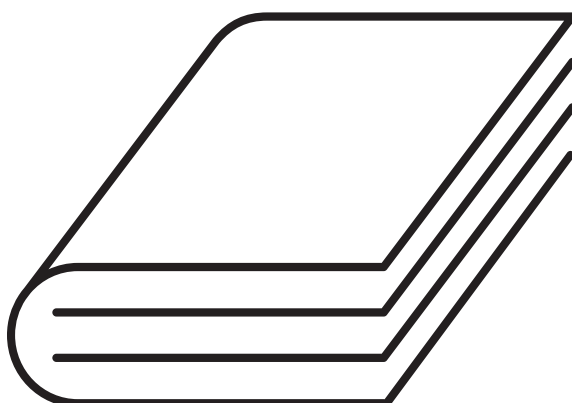
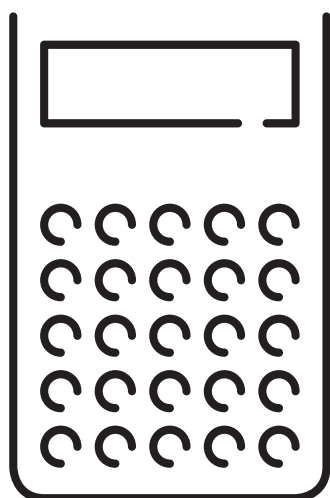
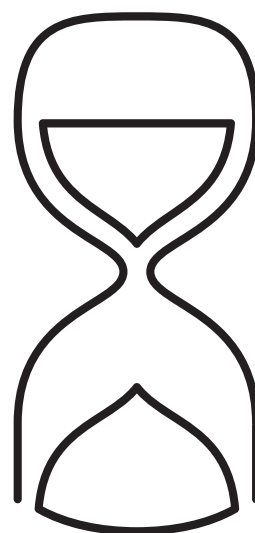
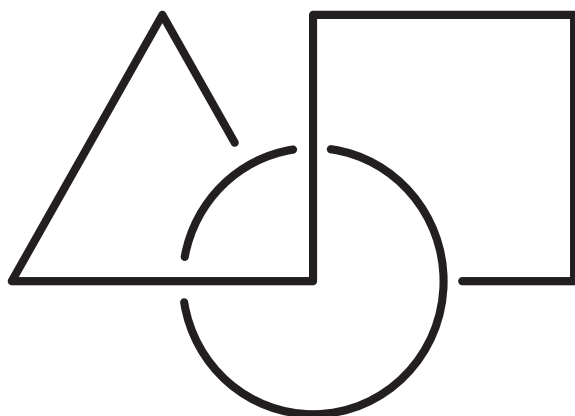
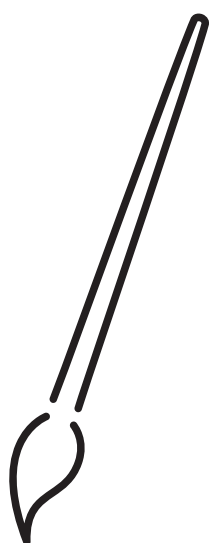




Teachers' Information Pack





Teachers' Information Pack

Welcome to National Glass Centre

National Glass Centre is one of Sunderland's premier visitor attractions, celebrating the city's unique glass making heritage and exploring ideas and creativity through glass. Housed in an innovative and striking glass and steel building on the banks of the River Wear, National Glass Centre offers visitors an opportunity to explore, learn and engage with glass through an award-winning, year-round programme of exhibitions and events.

We have everything you'll need for an educational, engaging and exciting day out. Our workshops are created and arranged specifically covering aspects of the current curriculum. Our experienced learning staff, purpose built learning spaces and even our glass roof will provide you with a truly unique learning experience.

How to Use this Resource

This pack has been designed to provide you with all of the practical information that you will need for your visit and also includes a number of suggested activities, discussion points and worksheets for use in school or at National Glass Centre.

The pack is split into three sections; Before Your Visit, During Your Visit, and After Your Visit. We recommend that you read through this pack prior to visiting and if you have any further questions please contact a member of the Learning and Engagement team.

Additional information and resources can also be downloaded from our website nationalglasscentre.com/learn.

Contents

p2	The Curriculum
p3	Before Your Visit
p5	During Your Visit
p7	After Your Visit
p8	Ways Of Looking And Talking About Art

Contact us

For bookings and general enquiries, please contact a member of the Learning and Engagement team on 0191 515 5555 or learning@sunderland.ac.uk.



The Curriculum

The most effective school visits are those that are integrated into your longer term planning. Visits with a clear focus, that pupils have prepared for and are extended with work back in school, have more meaning and have a greater impact on pupils' learning.

National Glass Centre's experienced Learning and Engagement team are on hand to support you in planning your visit.

Art

- Exploring our ideas and thoughts about art
- Drawing from observations
- Investigating and making arts, crafts and designs.
- Evaluating and developing art works
- Knowledge and understanding
- Creating discussion and talk

Science

- Sc3 Materials and their properties
- Grouping and classifying materials
- Changing materials
- Sc4 Physical processes – light and sound
- Everyday effects of light

History

- Chronological understanding
- Knowledge and understanding of events, people and changes in the past
- Historical enquiry
- Organisation and communication

Design and Technology

- Developing, planning and communicating ideas
- Working with tools, equipment, materials and components to make quality products
- Evaluating processes and products
- Knowledge of materials and components

Other links: Religious Education, Literacy, Geography, Citizenship, Maths



Before Your Visit

In the Classroom

If you are visiting National Glass Centre for the first time then you may like to introduce the visit by asking your pupils to come up with ideas about what they may see here and to ask them whether they classify glass as art. This can lead onto wider discussions about the value of art.

Why are we visiting a gallery?

Explain to pupils that they are going to visit National Glass Centre. Discuss other places where the children may have seen art, such as shops, churches or other museums and galleries.

What will the visit be like?

Go through the itinerary of the visit. Explain that the children will put their coats and bags in the cloak room, the sessions they will be taking part in, when they will have lunch, when they can go to the shop, how much money they are allowed to bring.

If taking part in one of our creative workshops children will get to keep the artwork they create. Often the artwork needs to be left at National Glass Centre for finishing processes and the pupils will not get to take it home on the day. We will inform you when the work is ready to be collected.

What do people do when they visit a museum or art gallery?

How do people behave? What sort of behaviour is expected? Either independently, or as a class, why not design a set of rules for 'How to behave in a gallery'?

Adult Helpers

We advise you to brief teaching assistants and adult helpers on the focus and content of the visit in advance. You can find session overviews on the website and will also receive an itinerary for your visit along with confirmation of your booking. It may be useful to provide each adult helper with a copy of the itinerary so that they have an idea of what will happen and how they can best support the group.

- Children must be supervised at all times including lunch time. Please be aware that the Centre is a public place and that children must be accompanied at all times to avoid safeguarding issues.
- During the practical aspects of the sessions we ask that adult helpers provide an extra pair of hands to support the pupils with their work.
- Adults should be reminded that works of art cannot be touched, no matter how tempting it might be to do so! They are easily damaged and cannot stand up to repeated touching by our high volume of visitors.
- Visits are led by a member of National Glass Centre's Learning and Engagement Team. However, discipline remains the responsibility of the teacher.



Booking Terms & Travel

Ratios

The Centre's recommended ratio of adults to children is:
1:4 for early years
1:6 for primary schools
1:15 for secondary schools

Amendment and Cancellation Policy

If you wish to amend the number of places booked, this must be done at least 7 days before the date of your visit. If the attendance is lower than the original number invoiced for and we are not notified, full payment will be due in line with the original booking. On the occasion that more students participate than originally booked for, we shall raise an additional invoice for those places.

Cancellations must be made in writing to the Learning and Engagement Team. A full refund will be given if more than 14 days' notice is given of cancellation. If the cancellation is made less than 14 days before the date of the event, a cancellation fee will be due to National Glass Centre, calculated as follows:

Number of days prior to event	Cancellation Fee % of estimated price
14 – 8 days	25%
2 – 7 days	50%
Less than 48 hours	100%

Getting to National Glass Centre

National Glass Centre is located on the banks of the River Wear at Monkwearmouth in Sunderland. Please visit the website for maps, directions and detailed travel information.

Metro

National Glass Centre is a ten minute walk from St Peter's Metro Station. Please allow extra time for your journey if travelling with a large group.

The Metro Class and Youth Group Travel scheme gives discounted travel and assistance for groups of up to 40 children under 18 years of age and 10 accompanying adults using the Tyne and Wear Metro. For more information visit nexus.org.uk/metro/class-travel.

Parking

National Glass Centre has free parking with three designated coach bays. The car park is located directly in front of the entrance to the Centre.



During Your Visit

On Arrival at National Glass Centre

National Glass Centre opens at 10am. However, we prefer groups to arrive at around 9.45am so that we can start sessions as close to 10am as possible. On arrival to the Centre please enter via the ramp and report to Visitor Services where a member of the Learning and Engagement team will be waiting to meet you. If you are leading your own visit a member of staff will provide you with any resources you have booked.

Learning Studios

The Gillian Dickinson Learning Studios are located to the left of the entrance. We also have a further Studio located downstairs next to the Hot Glass Studio.

Studios will automatically be booked when you book a workshop. However, if you are leading a self-directed visit there is a charge for the use of these rooms.

Space for lunch will also be provided in one of our Studios when taking part in a workshop. Again, if taking part in a self-directed visit there is a charge for the use of these rooms.

We ask that you treat the spaces with respect and that you support staff in tidying the space before the end of your session.

Gillian Dickinson (1932 – 2002) worked as an editor and a publisher throughout her adult life. She had a strong passion for the arts and the North-East of England and left her assets to the Gillian Dickinson Trust to promote creativity in young people and to help those from disadvantaged backgrounds in the North East. National Glass Centre wishes to acknowledge the generosity of the Gillian Dickinson Trust in supporting our work with young people.

Guidelines For Your Visit

National Glass Centre will be open to the public at the same time as your visit and so we ask that staff and pupils have respect for other visitors during their visit and read through the following guidelines with the group prior to your visit.

- Backpacks and large bags must be stored in the cloak room prior to entering the exhibitions.
- No running – floors can be slippery and you could fall and hurt yourself, someone else or damage the artworks.
- No touching artworks – even clean fingers leave marks and they can damage the artwork. Many of the works are on loan to us and to ensure we can continue to have such important work on show in the future we need to make sure we look after them.
- No shouting – sound travels very easily in our galleries and Learning Studios and it can get very noisy.
- No food or drink is allowed in the galleries.
- There are limitations to what art materials can be used in the galleries. Please discuss your requirements with us before your visit.
- Mobile phones should not be used in the galleries or during workshops unless permission is granted.
- Children must be accompanied by a member of teaching staff at all times and should not leave the group unless accompanied.
- Toilets are available on both floors of the building. Upper ground floor toilets are situated to the side of the main entrance. Lower ground floor toilets are located at the bottom of the staircase next to the Glass Yard. Pupils must be escorted to the facilities by an adult.
- In the event of a fire alarm, please make your way out of the nearest exit and gather at the nearest Fire Assembly Point. Visitors will be directed by a member of staff. Please keep a register on-hand to check your group.



During Your Visit

Access

National Glass Centre is a fully accessible building in all areas. We have disabled toilet facilities on both levels in addition to a Changing Places accessible toilet. There is a lift that provides access to the lower levels of the Centre. We have free manual wheelchair hire facilities, available on request at the Visitor Services desk. We offer these on a first come, first served basis.

Shop

The Shop is located on the lower ground floor next to the Hot Glass Studio and stocks a range of affordable items such as marbles, rubbers, pencils, sketchbooks and postcards. School groups are welcome to visit the shop but we ask that you supervise your group and consider allowing entry in smaller groups.

If you would like to use the shop during your visit please let us know in advance so that we can add it to your itinerary.

National Glass Centre's shop is full of exciting and intriguing products, but can be a busy place during school visits. To take the hassle out of your visit to our shop you can pre-order our shop packs for each of your pupils. Shop packs are available at £2.50, £3.00 and £3.50 and contain a selection of glass souvenirs and stationery.

Glass Yard

National Glass Centre's Glass Yard serves hot and cold food throughout the day and the menu is available to view online. Schools are not permitted to eat packed lunches in the Glass Yard but a space for lunch will be provided when booking a school visit or can be booked if coming on a self-directed visit. Teachers are welcome to purchase food and drinks from the Glass Yard and take them into the Learning Studios when your group is having lunch. Please be aware that it can get very busy over the lunchtime period, which can sometimes mean up to 30 minutes wait for freshly prepared hot food. Food and drink is not permitted in the galleries.

Photography

National Glass Centre welcomes photography in the galleries. Some exhibitions may require a Photography Permission Form to be completed and we will let you know if that is the case.

We often have photographers on site documenting exhibitions and workshops. National Glass Centre will not use photographs of your school or group without prior permission.



After Your Visit

Tell Us What You Think

After your visit you will receive an e-mail asking you for feedback on the day. We would like to encourage you to take the time to complete our feedback form as candidly as possible. We welcome all comments and constantly assess our workshops in order to improve the work we do with schools.

There is also a feedback activity for the pupils to complete included in the Worksheets section of this pack.

CPD

National Glass Centre specialises in delivering practical Continued Professional Development sessions to teachers and education professionals. These sessions are led by our experienced Learning and Engagement team alongside practicing artists and are aimed at broadening teachers' creative skills.

The focus of these sessions will be to familiarise participants with the galleries, learning spaces and creative studios at National Glass Centre, increasing confidence in using our venue as a learning platform, as well as providing a practical making sessions to increase participants' skills. Our practical sessions can involve glass fusing and other kiln forming techniques, stained glass, glass painting, sandcasting, sandblasting, glass printing or ceramics. We offer a number of sessions delivered around changing themes throughout the year or, if you would like something specific, we can tailor sessions around a theme of your choice.

If you have your own kiln at school, we can offer one-to-one courses to help you get the most out of your equipment.

For details of upcoming CPD events please see our website.

Space to think

Why not use our inspiring site for your next INSET day, staff training or staff meeting? Our unique building and exciting exhibitions provide the perfect space for your events. Bring your staff to one of our venues and we can introduce you to the endless possibilities on how to use our venue and exhibitions in your learning programme. Specialist staff can be there to support you with your planning for part of the day and to give advice on how to make the most of the opportunities to learn outside the classroom.

Activities

In the Worksheets section of this pack we have provided a number of activities that can be completed following your visit to National Glass Centre. These worksheets are themed around glass, art and design, heritage, science and recycling.

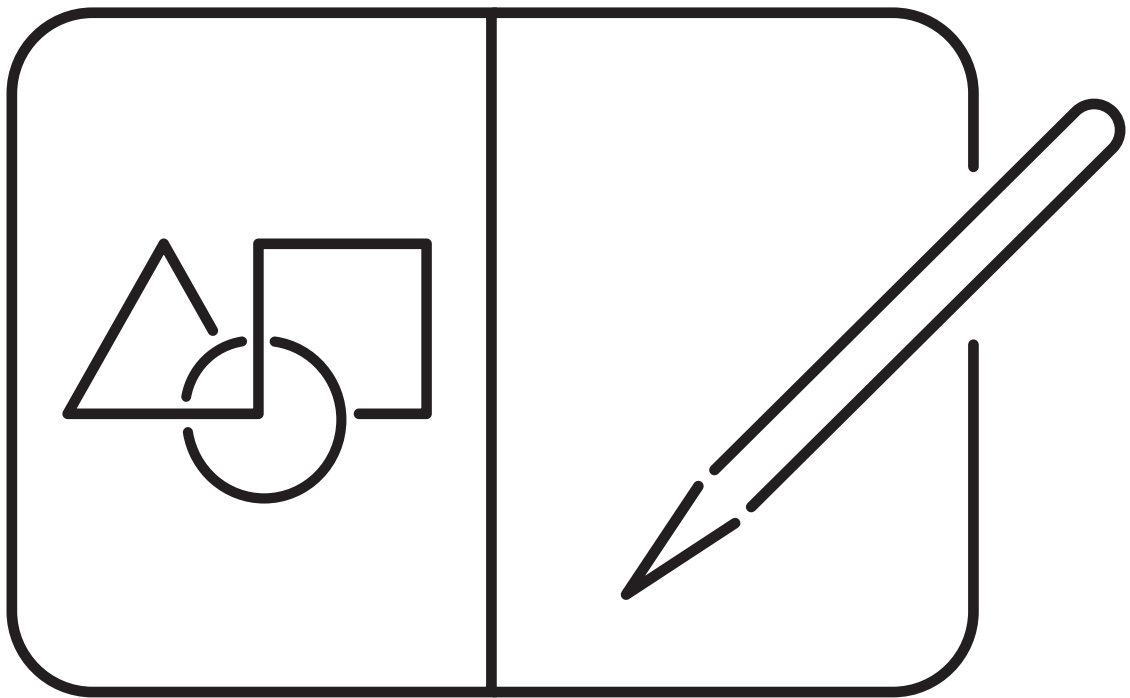
Newsletter

After visiting National Glass Centre, the email address you used when booking will automatically be added to our School Newsletter database. Keep an eye out for this newsletter for information on special teachers' events, CPD sessions, project opportunities and National Glass Centre news.

Collecting Your Artwork

Depending on which activities you take part in, the artwork produced by pupils may need to be kept at National Glass Centre for finishing processes, such as kiln-firing. We will let you know when your work is ready and it will be available to collect at your convenience. If collecting the artwork is an issue then please don't hesitate to contact a member of our Learning and Engagement team.

Resources





Resources

We have developed a number of free resources to support visits to National Glass Centre and classroom teaching. In this section you'll find information on our online resources, suggested activities and worksheets.

Online

A number of digital resources including a game and an interactive tour of our Stories of Glass in Sunderland exhibition are available on our website. These resources are a great introduction to the history of glass making in Sunderland and can be used to familiarise pupils with the topic and National Glass Centre before your visit.

Our digital resources can be found at nationalglasscentre.com/learn/resources

Feedback

In addition to receiving feedback from teachers, we are also keen to know what pupils thought of their visit to National Glass Centre. We have provided a Postcard activity sheet in this section for pupils to cut out, fill in and post back to us.

In this section

- Ways of Looking and Talking About Art
- Feedback Postcard
- Stained Glass Colouring Worksheet
- Glass Recycling Activity
- Pyrex Pattern Design Activity
- Changing States Activity

Worksheets

Each worksheet in this section has been designed to complement a visit to National Glass Centre and can be used as a pre or post visit activity for your group.



Talking About Art

Open-ended Questioning

We like to encourage discussion about artwork that allows pupils to form their own opinions by introducing the idea that there is no 'right or wrong' answer.

Open-ended questions encourages a more thoughtful response from the pupils.

- How does the artwork make you feel?
- Who / what influenced the artist?
- What do you think the artist was thinking when they created the artwork?
- Where do you think they have started the piece and how has it developed?
- Do you think the artwork is based on reality or imagination?
- Does it remind you of anything else?
- How is it different to see a piece of art in the gallery compared to a book / internet?

Factual Questions

- Who made the artwork? Where was the artist born? What date was it made? What is it called?
- What is it made of? What colour is it? How was it made?

Personal Response

- Do you like / dislike the artwork? Why?
- What do you think it means?
- How does it make you feel?
- What would you change about it?
- If you could talk to the artist about the work what would you ask them?
- If you could display the artwork somewhere else, where would you put it and why?

Process, Materials and Techniques

- How has the artwork been made?
- How long do you think it took to make?
- What materials did the artist use to create the artwork?
- Is it realistic / abstract?
- Do you think it took the artist a long time to create?
- What kind of marks / textures / details can you see on the surface?
- What tools do you think were used to create it?

Form, Content, Colour

- Describe the shapes and forms you see in the artwork.
- Do these shapes and forms remind you of anything?
- Describe the colours you see.
- Has the artist used a limited or varied palette?
- What mood do these colours express?
- How would the mood of the artwork change if it contained different colours?



Worksheet Information

Stained Glass Worksheets

When Benedict Biscop founded St Peter's Monastery in 674 AD he brought glaziers from Gaul to teach the Anglo-Saxons how to make coloured glass. The stained glass windows that went into St Peter's Church were made using the first coloured glass to be made in anywhere in Britain.

The stained glass worksheets in this section can be coloured in so that pupils can design their very own stained glass windows.

Pyrex Pattern Design

Pyrex is best remembered for the iconic patterns on the glassware. Between the years 1921 to 2007, every piece of Pyrex that was sold in Britain and over 120 other countries was made in Sunderland.

Using inspiration from Pyrex designs, pupils can use the worksheet to come up with their own designs for Pyrex dishes.

Changing States

This worksheet shows the glass making process. Using the worksheet, go through the process with your pupils and see if they can fill in the missing words demonstrating how glass can change from a solid to a liquid and back again!

Glass Recycling

The images in this worksheet show each stage of the glass recycling process. However, the images have been mixed up and are in a random order. Pupils can cut out the images and see if they can put them into the right order. Glass recycling is infinite and the process can continue without ever lowering the quality of the glass.

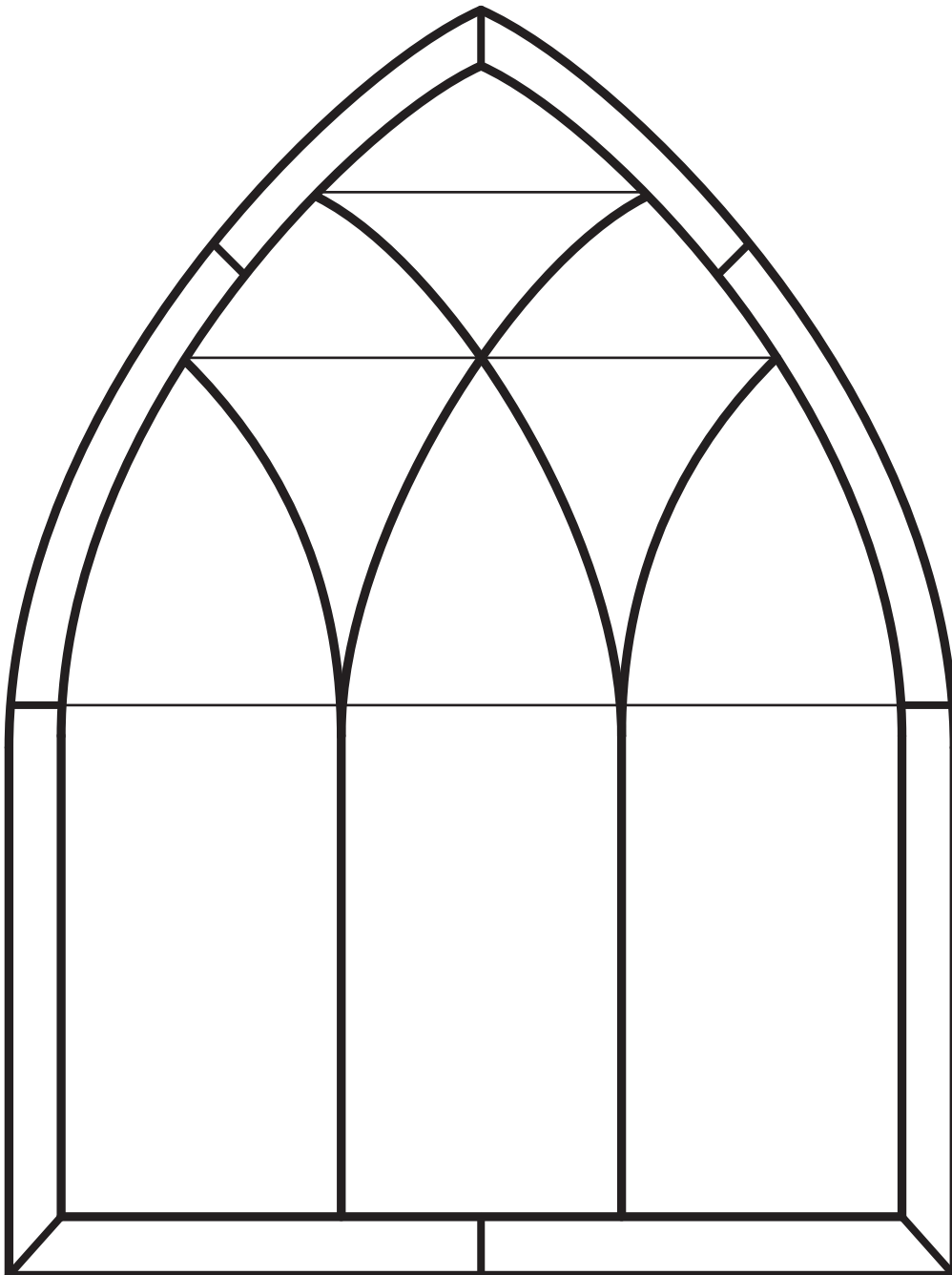
The glass recycling process:

1. Empty bottles and jars being put into bottle banks
2. Glass being transported to recycling factories
3. Glass being sorted to remove any other materials
4. Sorted glass being melted in the furnace
5. New glass bottles being made in the factory
6. Bottles and jars being transported to shops
7. Jars and bottles stacked on the shelves for people to buy
8. People buy the glass products and take them home to use



Colouring Worksheet

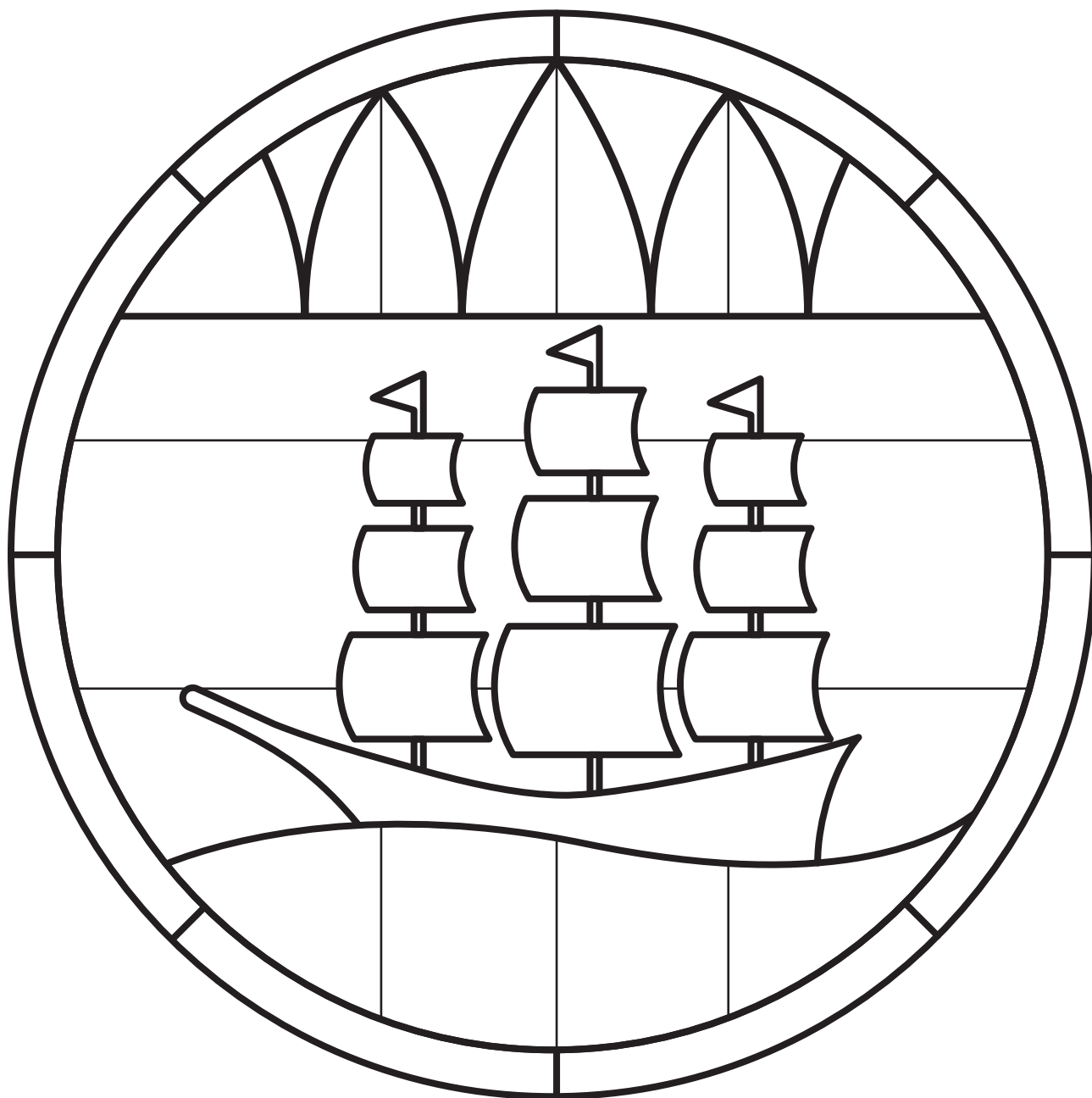
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Colouring Worksheet

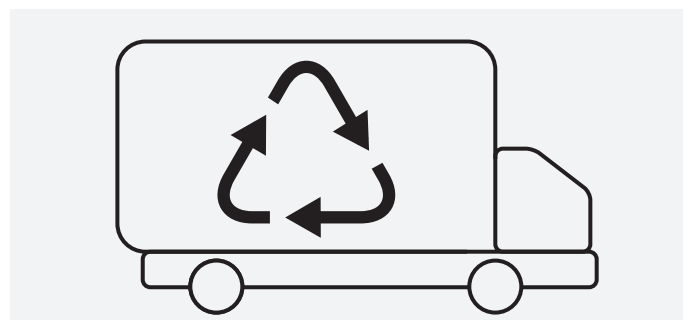
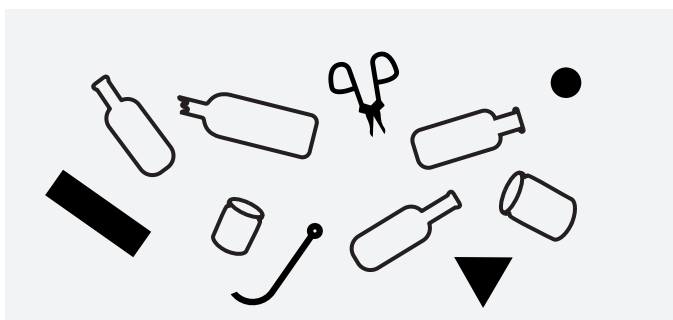
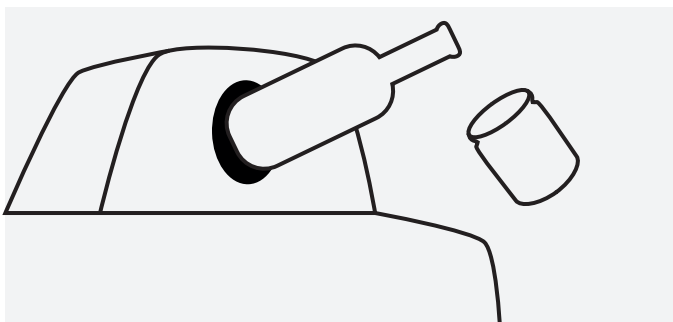
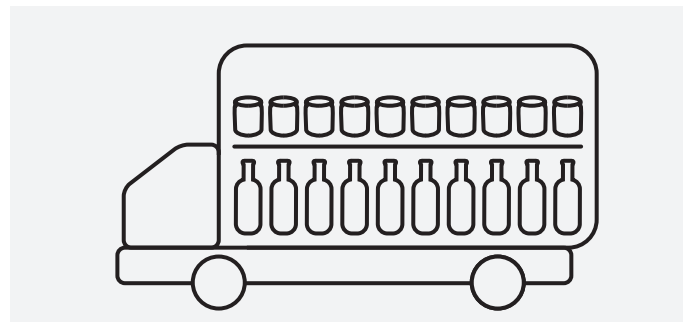
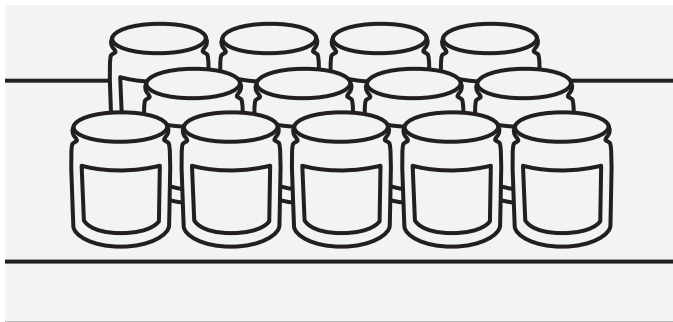
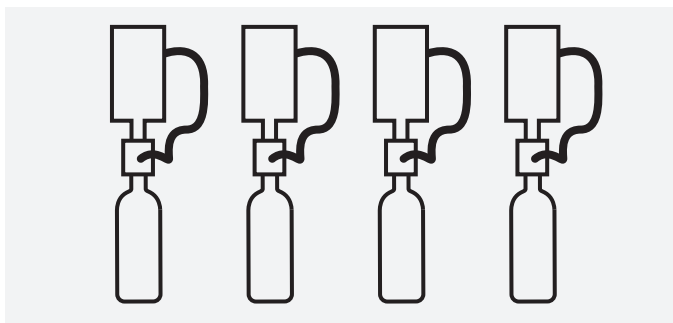
Name: _____





Glass Recycling

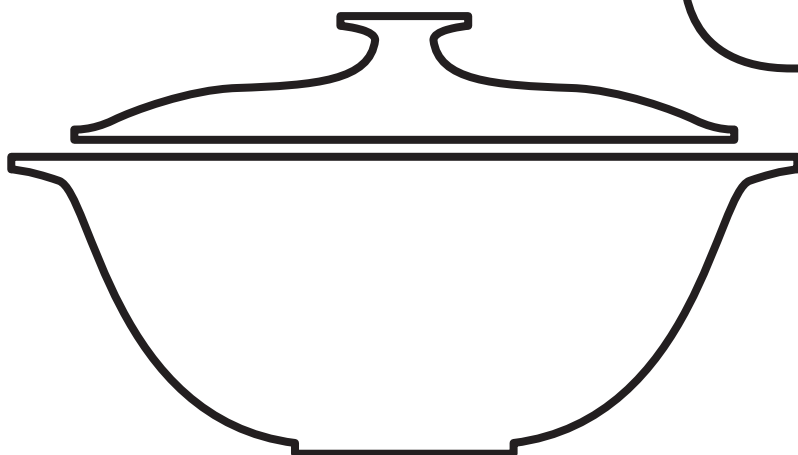
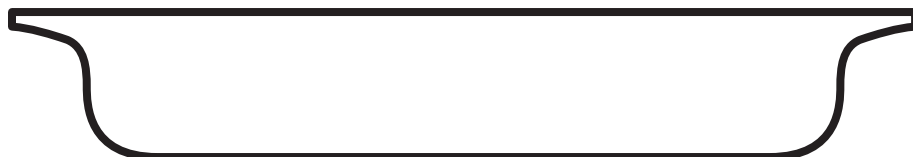
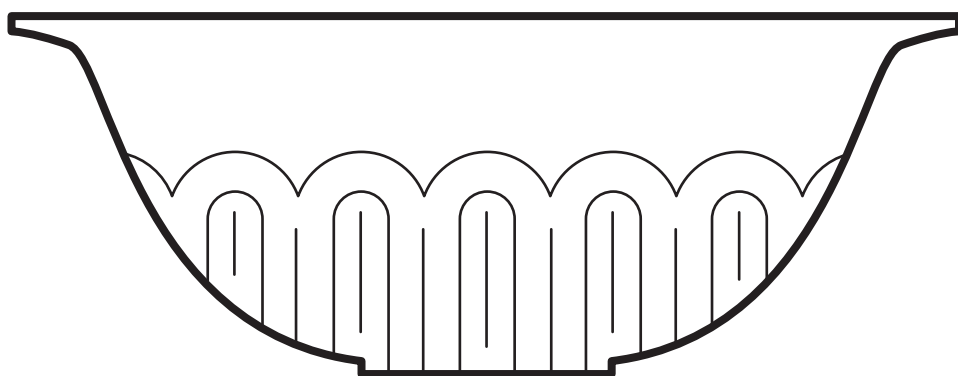
Name: _____





Pyrex Pattern Design

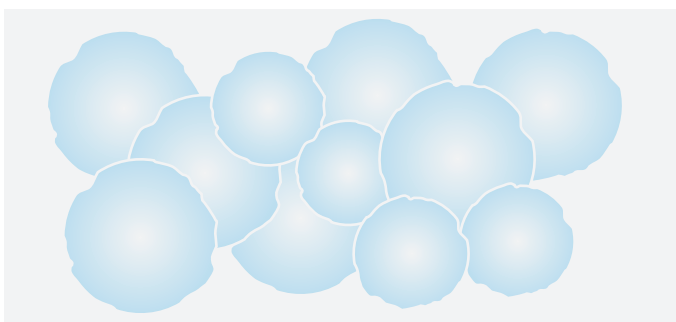
Name: _____



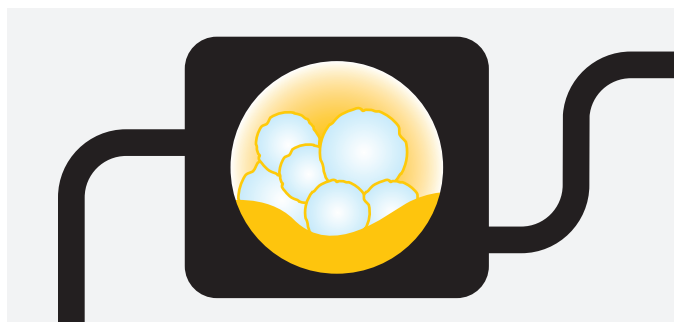


Changing States

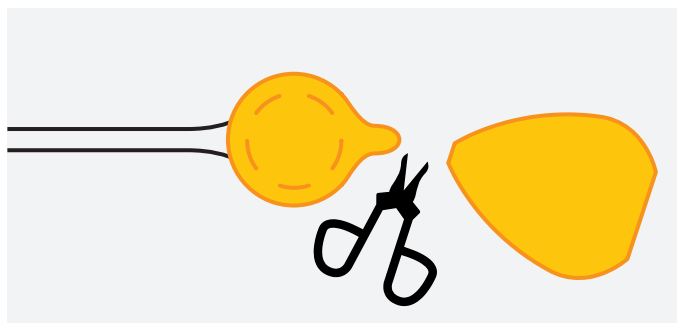
Name: _____



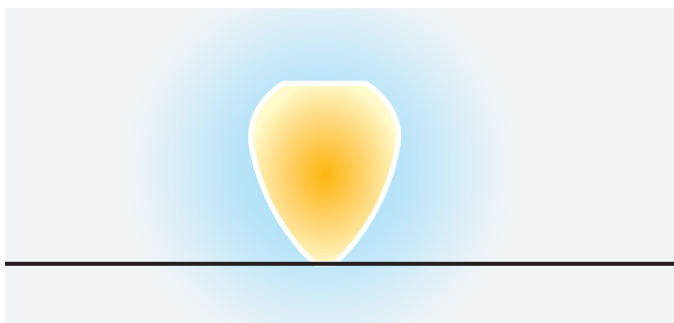
1 This is glass cullet. It is what the glass looks like when we buy it. At this point the glass is a _____.



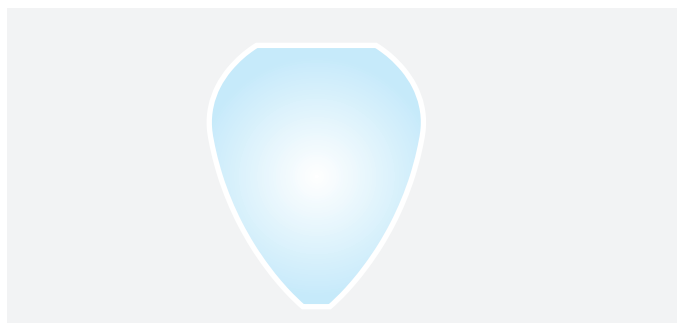
2 The glass is melted in the furnace at temperatures of 1100°C .



3 At this point the glass is a _____. It can now be shaped using tools.



4 Once the object has been shaped it needs to be cooled gradually overnight in a lehr.



5 Once the object has cooled to room temperature the glass becomes a _____ again.



Tell us about your visit
to National Glass Centre...

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National Glass Centre

Liberty Way

Sunderland

Tyne and Wear

SR6 0GL



Tell us about your visit
to National Glass Centre...

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National Glass Centre

Liberty Way

Sunderland

Tyne and Wear

SR6 0GL

We'd love to hear what you thought about your visit.
Why not tweet us, or post some photos on
Instagram?

Twitter: [ngc_learn](#)

Facebook: [nationalglasscentresunderland](#)

Instagram: [nationalglasscentre](#)

National Glass Centre
is part of the University
of Sunderland



**University of
Sunderland**



Supported using public funding by
**ARTS COUNCIL
ENGLAND**

Sunderland
City Council

